

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicant : Benjamin Englander
Application No. : 09/757,130 Confirmation No. : 6441
Filed : January 9, 2001
For : ANTI-GLARE VEHICULAR MIRROR
Group Art Unit : 2872
Examiner : Thong Q. Nguyen

Commissioner for Patents
P.O. Box 1450
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AMENDMENT AND SUBMISSION UNDER 37 C.F.R. § 1.114(c)

Sir:

Responsive to the Office Action mailed November 7, 2008 and the Advisory Action mailed April 29, 2009, Applicant hereby amends the above-identified patent application as follows:

Amendments of the Claims are reflected in the listing of claims which begins on page 2 of this Reply.

Remarks begin on page 8 of this Reply.

Conclusion begins on page 20 of this Reply.

Authorization begins on page 23 of this Reply.

Amendments of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented) A cross-view, school bus mirror assembly, comprising:

a mirror element having a contoured outer surface, said mirror surface shaped to provide a wide angle field of view of a predetermined scene, which said view extends both in a horizontal direction and in a vertical direction along a front and at least one side of a school bus, said scene including images of both said front and said at least one side of said school bus;

a mirror pole;

the contoured outer surface of the mirror element being affixed to the mirror pole and used to provide the wide angle field of view of said predetermined scene to a driver of said school bus, while said driver drives said school bus;

a mirror mount for connecting the mirror pole to a front fender of the school bus; and

the contoured outer surface of the mirror element being a convex, generally dome shaped and contiguous mirror surface surrounded by a peripheral edge, the outer mirror surface proceeding in said vertical direction from an uppermost position to a lowermost vertical position and facing toward the driver of the school bus to which the mirror element is mounted, a portion of the outer surface, which comprises less than one-half of the surface taken in the vertical direction, beginning from the uppermost position on the contoured mirror surface and ending above a straight notional line which bisects the mirror surface in the horizontal direction, being treated with and comprising an antiglare material which reduces glare, including from sun rays, without rendering the treated surface opaque as to be non-reflective, the outer surface of the

mirror element thereby comprising the treated surface and a non-treated surface, whereby the mirror surface enables the driver to simultaneously observe a first part of the scene at the treated surface and a second part of the scene at the non-treated surface.

2. (Original) The mirror of claim 1, wherein the portion treated to reduce glare encompasses less than one-third of said surface.

3. (Previously Presented) The mirror of claim 1, wherein the portion treated to reduce glare is located in spaced relation to and not in contact with any portion of the peripheral edge of the mirror surface.

4. (Original) The mirror of claim 1, in which the portion treated to reduce glare is formed with a chroming process.

5. (Original) The mirror of claim 1, wherein the convex generally dome shaped mirror surface is oval shaped.

6. (Previously Presented) The mirror of claim 5, in which the oval shape surface has associated therewith a minor axis and a major axis and the portion treated to reduce glare is located in an upper portion of the mirror surface relative to the major axis of the mirror.

7. (Previously Presented) The mirror of claim 1, in which the portion treated to reduce glare is located on one side relative to a minor axis of the mirror surface.

8. (Canceled)

9. (Previously Presented) A school bus in combination with a mirror assembly, comprising in combination:

a school bus;

a mirror element having a contoured outer surface, said mirror surface utilized to provide a wide angle field of view of a predetermined scene, which extends both in a horizontal direction and in a vertical direction along a front and at least one side of the school bus, said scene including images of both said front and said at least one side of said school bus; a mirror pole; the contoured outer surface of the mirror element being affixed to the mirror pole and used to provide the wide angle field of view of said predetermined scene to a driver of said school bus, while said driver drives said school bus; a mirror mount for connecting the mirror pole to a front fender of the school bus; and

the contoured outer surface of the mirror element being a convex, generally dome shaped and contiguous mirror surface surrounded by a peripheral edge, the outer mirror surface proceeding in said vertical direction from an uppermost position to a lowermost vertical position and facing toward the driver of the school bus to which the mirror element is mounted, a portion of the outer surface, which comprises less than one-half of the surface taken in the vertical direction, beginning from the uppermost position on the contoured mirror surface and ending above a straight notional line which bisects the mirror surface in the horizontal direction, being treated with an antiglare material to reduce glare, including from sun rays, without rendering the treated surface opaque as to be non-reflective, the outer surface of the mirror element thereby comprising the treated surface and a non-treated surface, whereby the mirror surface enables the driver to simultaneously observe a first part of the scene at the treated surface and a second part of the scene at the non-treated surface.

10. (Previously Presented) A cross-view, school bus or vehicle mirror assembly, comprising:

a mirror pole;

a mirror mount for connecting said mirror pole to a front fender of a school bus or vehicle;

a mirror element affixed to said mirror pole and having a contoured outer mirror surface comprising a convex, generally dome shaped mirror surface having a peripheral edge and having an upper area capable of reflecting images located above the bottom half portion of the mirror element, and the contoured outer mirror surface facing toward the school bus or vehicle to which the mirror element is mounted, and the contoured outer mirror surface of the mirror element facing toward a driver of the school bus or vehicle; and

an antiglare material treated on an upper area of the dome shaped mirror surface above the bottom half of said contoured outer mirror surface of said mirror element to reduce glare from sun rays emanating at least from a direction in front of the driver from the front or sides of the school bus or vehicle with respect to a first image portion located above the bottom half portion of the mirror element while darkening the first image portion reflected thereby, and

wherein the bottom half portion of the mirror element is free of antiglare material that reflects a second image portion without darkening the second image portion.

11. (Previously Presented) The mirror assembly of claim 10, wherein the upper area above the bottom half of said contoured outer mirror surface on which the antiglare material is disposed and treated comprises less than one-third of said contoured outer mirror surface.

12. (Previously Presented) The mirror assembly of claim 10, wherein the upper area above the bottom half of said contoured outer mirror surface on which the antiglare material is disposed and treated is located in spaced relation to and not in contact with any part of the peripheral edge.

13. (Previously Presented) The mirror assembly of claim 10, wherein the antiglare material is disposed and treated on the upper area with a chroming process.

14. (Previously Presented) The mirror assembly of claim 10, wherein the mirror surface is oval shaped.

15. (Previously Presented) The mirror assembly of claim 14, wherein the oval shaped mirror surface has associated therewith a minor axis and a major axis, and wherein the upper area on which the antiglare material is disposed and treated is located in an upper portion of the mirror surface relative to the major axis of the mirror surface.

16. (New) A cross-view, school bus or vehicle mirror assembly, comprising:

a mirror pole;

a mirror mount for connecting said mirror pole to a front fender of a school bus or vehicle;

a mirror element affixed to said mirror pole and having a contoured outer mirror surface comprising a convex, generally dome shaped mirror surface having a peripheral edge and having an upper area capable of reflecting images located above the bottom half portion of the mirror element, and the contoured outer mirror surface facing toward the school bus or vehicle to which the mirror element is mounted, and the contoured outer mirror surface of the mirror element facing toward a driver of the school bus or vehicle; and

an antiglare material treated on an upper area of the dome shaped mirror surface above the bottom half of said contoured outer mirror surface of said mirror element to reduce glare from sun rays emanating at least from a direction in front of the driver from the front or sides of the school bus or vehicle, and

wherein the bottom half portion of the mirror element is free of antiglare material.

REMARKS**I. Summary of Office Action**

Claims 1-7 and 9-15 were pending in the above-identified patent application.

Claims 10-15 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. (Office Action, p. 4). The remaining rejections of claims 10-15 under 35 U.S.C. § 112, first and second paragraphs, have been overcome. (Advisory Action, Continuation Sheet).

Claims 1-6 and 9-15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,822,157 to Stout (“Stout”) in view of U.S. Patent No. 1,768,354 to Falge (“Falge”). (Office Action, pp. 6-9). Claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Stout in view of Falge with or without U.S. Patent No. 3,199,114 to Malifaud (“Malifaud”). (Office Action, pp. 9-10).

II. Summary of Applicant’s Reply

New independent claim 16 has been added. New independent claim 16 is fully supported by the specification as originally filed and adds no new matter.

Applicant is submitting herewith a Declaration under 37 C.F.R. § 1.132, providing evidence of secondary considerations in response to the rejection of the claims as being unpatentable under 35 U.S.C. § 103(a).

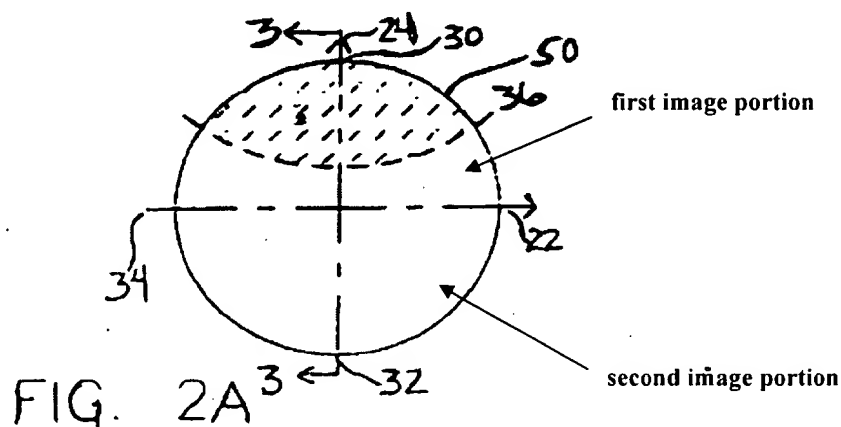
The claim rejections are respectfully traversed.

III. The Section 112, First Paragraph Rejections

The Office Action asserts that “the disclosure, as originally filed, does not provide support for the feature thereof ‘an antiglare...second image portion’ as recited in the claim, lines

12-20,” and that “the disclosure, as originally filed, does not disclose any support related to the so-called ‘first image portion’, ‘second image portion’ and their structural relationships with the front or side of the school bus or vehicle.” (Office Action, p. 4).

This is not the case, and it is respectfully submitted that the first and second image portions, and their relationships with the school bus or vehicle, are fully supported by the specification as originally filed. The first image portion is simply a portion of the mirror in the claimed upper area in which an image is provided, and the second image portion is a portion of the mirror in the claimed bottom half portion in which an image is provided. These portions are fully supported by at least Figure 2A of the drawings, among others. Figure 2A of the application is reproduced below, and labels are provided to identify the first and second image portions shown in the figure:



The specification further describes that:

In a mirror element fabricated so that the *upper one half portion* of the dome surface is treated for glare, *the image in that portion* will be darkened because of the glare treatment. It is important not to increase the portion treated with anti-glare material beyond the *bottom one half portion* because the glare treatment reduces the sharpness of the image and it is important that the *lower half mirror* which points to the front of the bus where very young, short children may be standing is not affected.

(Specification, p. 4, ll. 5-10 (emphasis added); *see also* p. 3, ll. 8-15; Figs. 2B, 2C).¹ The first and second image portions are therefore supported by the disclosure as originally filed, as are their relationships with the school bus or vehicle.

For at least the reasons set forth above, claim 10 is in compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, and therefore the rejection of claim 10 should be withdrawn. It follows that dependent claims 11-15, which depend directly or indirectly upon independent claim 10, are also in compliance with the written description requirement, and therefore the rejection of those claims 35 U.S.C. § 112, first paragraph should also be withdrawn.

IV. The Section 103 Rejections

Independent claims 1, 9, and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Stout in view of Falge. (Office Action, pp. 6-9).

To reject a claim as being obvious, “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *see also* M.P.E.P. § 2141. Once these inquiries have been resolved, it is then determined whether the claimed invention would have been obvious to one of ordinary skill in the art. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S.Ct. 1727, 1740-1741 (2007). **Objective evidence, referred to as “secondary considerations,” must also be evaluated in order to determine whether a claim is obvious.** *See Graham*, 383 U.S. at 17-18; M.P.E.P.

¹ All citations to the specification in this response are to the clean copy of the substitute specification filed on April 10, 2008 and accepted by the Examiner in this Office Action.

§ 2141(II). These secondary considerations may include, for example, commercial success of the claimed invention and copying of the claimed invention by others. *See* M.P.E.P. § 2145.

The rejection of the claims in the Final Office Action **fails to satisfy the *Graham* factual inquiries** required to establish a *prima facie* case of obviousness. As submitted in Applicant's Supplemental Amendment filed on July 11, 2008 ("Applicant's Supplemental Amendment"), and as maintained herein, one of ordinary skill would not have combined Stout and Falge in the first instance, and the combination of Stout with Falge fails to teach or suggest the combination of features recited in Applicant's independent claims, including a mirror element having a contoured outer surface, the contoured surface being convex and generally dome shaped, and "a portion of the outer surface . . . being treated with and comprising an antiglare material which is effective to reduce glare."

Specifically, one of ordinary skill in the art at the time of Applicant's invention would not have combined the teachings of Stout with those of Falge. In particular, and as set forth in Applicant's Supplemental Amendment, Stout discloses a cross-view mirror for mounting outside of a bus, whereas **Falge discloses a rear view mirror for mounting within a bus**, and which is structured such that **only a portion of the outer reflecting surface** is used at any one time, depending on the tilt of the mirror. The entire surface of the mirror in Falge is never used to provide a single, integrated, wide-angle field of view as with the claimed mirror assembly. The Office Action contends that this is simply "a rearranging [of] parts of an invention," and therefore "involves only routine skill in the art." (Office Action, p. 11) (citation omitted). However, Applicant respectfully submits that the present invention is not merely a rearrangement of parts that is being proposed with the combination of Stout with Falge. Rather, the Examiner is proposing to combine the features from ***two different mirrors*** that are used in

different locations of the vehicle (*i.e.*, outside-Stout vs. inside-Falge) for *different* purposes (*i.e.*, cross-view-Stout vs. rear-view-Falge). Thus, contrary to the Examiner's assertions, one of ordinary skill in the art simply **would not have looked to the disclosure of Falge to combine with the teachings of Stout.**

In addition, even if Stout and Falge were combined, the resulting combination, without further modification by the Examiner, does not yield the presently claimed invention. Specifically, the Examiner's proposed combination yields, at most, a cross-view mirror having a treated back surface or an additional screen or filter that is flipped down over the mirror.

In addition to the **failure of the Office Action to provide a reason** to combine Stout and Falge, the **failure of Stout and Falge** to yield a *prima facie* case of obviousness, and the **failure to satisfy the Graham factual inquiries**, secondary considerations of non-obviousness also exist and must be considered. *See Graham*, 383 U.S. at 17-18; M.P.E.P. § 2141(II). Applicant previously submitted three letters, as well as the State of Florida bus regulations, with Applicant's Supplemental Amendment. These documents provide significant evidence of the commercial success of the claimed invention, and establish that the commercial success is a direct result of the claimed features, *i.e.*, the treatment of the cross-view mirror with anti-glare material. (*See* July 11, 2008 Amendment, pp. 9-12).

Specifically, the Office Action **fails to provide a reason** why one of ordinary skill would have combined Stout and Falge in the first instance. Applicant submits that the only explanation for the lack of a reason being provided is that Applicant discovered the problem that the present invention solves, along with the solution to the discovery that is clearly described and tailored in the currently pending claims. The Court of Customs and Patent Appeals (CCPA) has stated in this connection in *In re Nomiya*, 509 F.2d 566, 184 USPQ 607, 612 (C.C.P.A. 1975):

It should not be necessary for this court to point out that *a patentable invention may lie in the discovery of the source of a problem* . . . This is part of the “subject matter as a whole” which should always be considered in determining the obviousness of an invention under 35 U.S.C. 103.

Similarly, the CCPA stated in *In re Bisley*, 197 F.2d 355, 94 USPQ 80, 86–87 (C.C.P.A. 1952):

Moreover, the conception of a new and useful improvement must be considered along with the actual means of achieving it in determining the presence or absence of invention. . . . *The discovery of a problem calling for an improvement is often a very essential element in an invention correcting such a problem; and though the problem, once realized, may be solved by use of old and known elements, this does not necessarily negative invention.*

The Board of Patent Appeals and Interferences has similarly held in *Ex parte Hiyamizu*, 10 USPQ2d 1393, 1394–95 (B.P.A.I. 1988):

It is to be noted, however, that citing references which merely indicate that isolated elements and/or features recited in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious. . . . Furthermore, it is well settled that where the claimed invention solves a problem, *the discovery of the source of the problem and its solution are considered to be part of the “invention as a whole” under 35 U.S.C. 103.*

See also *In re Spinnoble*, 405 F.2d 578, 585, 160 USPQ 237, 243 (CCPA 1969) (“[A] patentable invention may lie in the discovery of the source of a problem.”).

The Federal Circuit has recently qualified the Supreme Court decision in *KSR*

International Co. v. Teleflex Inc., 550 U.S. 398 (2007), limiting the application of “obvious to try,” and prohibiting the use of obvious to try under the following situations:

To differentiate between proper and improper applications of “obvious to try,” this court outlined two classes of situations where “obvious to try” is erroneously equated with obviousness under § 103. In the first class of cases,

what would have been “obvious to try” would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful.

Id. In such circumstances, where a defendant merely throws metaphorical darts at a board filled with combinatorial prior art possibilities, courts should not succumb to hindsight

claims of obviousness. The inverse of this proposition is succinctly encapsulated by the Supreme Court's statement in *KSR* that where a skilled artisan merely pursues "known options" from a "finite number of identified, predictable solutions," obviousness under § 103 arises. 550 U.S. at 421.

The second class of *O'Farrell's* impermissible "obvious to try" situations occurs where

what was "obvious to try" was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it.

853 F.2d at 903. Again, *KSR* affirmed the logical inverse of this statement by stating that § 103 bars patentability unless "the improvement is more than the predictable use of prior art elements according to their established functions." 550 U.S. at 417. . . .

In re Kubin, --- F.3d ---, --- USPQ2d ---, 2009 WL 877646 (Fed. Cir. April 3, 2009).

Accordingly, it is inappropriate for the Office Action to broadly state that Stout and Falge would have been combined when Applicant discovered the problem in connection with the claimed cross view mirror.

The MPEP also makes clear that the key to supporting an obviousness rejection under 35 U.S.C. § 103 is providing a clear articulation of the reason or reasons why the claimed invention would have been would obvious. *See* MPEP § 2141(III). As stated above, the Office Action fails to provide such a reason, and cannot be sustained by the "mere conclusory statements" that are made. *See id.*

The Final Office Action asserts that the evidence previously submitted with Applicant's Supplemental Amendment was insufficient and states that "[a] bare statement in each of the letter without any written data for supporting the numbers of mirror being sold is not sufficient to overcome the rejection. In particular, it is unclear about the time in which the numbers of mirror being sold as stated in the letter." (Office Action, p. 13). While Applicant disagrees with the Examiner's assertion that the previously-submitted evidence was insufficient, Applicant is

submitting herewith a Declaration under 37 C.F.R. § 1.132 from Benjamin Englander (“the Englander Declaration”), providing the requested sales data, as well as information on competitors in the field. The Englander Declaration also resubmits the documentation provided with Applicant’s Supplemental Amendment.

According to the Englander Declaration, Rosco’s tinted Hawkeye mirror has been on the market since 2001, and its introduction satisfied a *substantial need* in the market for a mirror that allowed for wide-angle viewing of the area around a school bus, while also reducing glare for the driver of the bus. (See Englander Declaration, ¶ 5). Rosco’s tinted mirror has enjoyed significant commercial success since it was introduced in 2001. (See Englander Declaration, ¶¶ 6, 7). Rosco has made approximately \$5.5M in total sales from 2001 through 2008. (See Englander Declaration, ¶ 6). The commercial success of Rosco’s Hawkeye tinted mirror is directly related to its anti-glare tinting. (See Englander Declaration, ¶¶ 8, 9). As further evidence of this, the State of Florida wrote its 2006 School Bus Specifications to require tinting of cross-view mirrors after successful testing of Rosco’s design. (See Englander Declaration, ¶ 9).

A number of other companies sell standard cross-view mirrors that do not include the claimed anti-glare tint. (See Englander Declaration, ¶ 10). Because these alternative cross-view mirrors were available on the market, and Rosco still made approximately \$5.5M in sales from its tinted cross-view mirrors, the claimed anti-glare tint feature was responsible for the commercial success of the claimed invention. This further demonstrates the nexus between the claimed invention and Rosco’s commercial success. (See *id.*).

Only one competitor of Rosco’s, Mirror Lite Company, sells a tinted cross-view mirror. (See Englander Declaration, ¶ 11). Mirror Lite Company markets its tinted cross-view mirror as

being a **direct replacement for Rosco's tinted cross-view mirror**. (See Englander Declaration, ¶ 12). Mirror Lite Company's manufacture of a mirror that it markets as a replacement for Rosco's tinted mirror demonstrates its **copying of Rosco's claimed invention design**, yet another secondary consideration that rebuts the Examiner's allegation that the claimed invention is obvious. (*See id.*).

Accordingly, for at least these reasons, claims 1, 9, and 10 are patentable over the combination of Stout with Falge, and the therefore rejection of the claims under section 103 should be withdrawn. In addition, dependent claims 2-7 and 11-15 are allowable at least because independent claims 1 and 10 are allowable. Thus, the rejections of dependent claims 2-7 and 11-15 are moot and should also be withdrawn.

Additionally, dependent claim 2 includes all the features of independent claim 1, and further recites that "the portion treated to reduce glare encompasses less than one-third of said surface." For at least the reasons described above, the combination of Stout and Falge fails to teach or suggest the combination of features recited in dependent claim 2, nor does the Office Action provide a reason for the combination. Accordingly, claim 2 is patentable over the combination of Stout with Falge, and the rejection of the claim under section 103 should be withdrawn.

Dependent claim 3 includes all the features of independent claim 1, and further recites that "the portion treated to reduce glare is located in spaced relation to and not in contact with any portion of the peripheral edge of the mirror surface." For at least the reasons described above, the combination of Stout and Falge fails to teach or suggest the combination of features recited in dependent claim 3, nor does the Office Action provide a reason for the combination.